A MICROFLUIDIC DESIGN AUTOMATION METHOD AND SYSTEM

ABSTRACT OF THE DISCLOSURE

The present invention generally relates to microfluidics and more particularly to the design of customized microfluidic systems using a microfluidic computer aided design system. In one embodiment of the present invention a microfluidic circuit design method is provided. The method includes developing synthesizable computer code for a design. Next, a microfluidic circuit schematic, including a plurality of symbols for microfluidic components, is generated either interactively or using the synthesizable computer code. The microfluidic circuit schematic is then functionally simulated. The microfluidic components are placed and routed on a template to form a physical layout. Then the physical layout is physically simulated using dynamic simulation models of the microfluidic components; and the physical layout is written to a layout file.

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